

Use of Personalized Migraine Summary Reports in a Symptom Tracking Program to Support Migraine Self-Management

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Objectives

- Migraine symptom tracking is considered an important strategy for helping individuals better understand their migraine and for improving communication with healthcare providers about treatment options.
- We describe how personalized migraine summary reports generated from daily diaries enable migraine self-management and explore predictors of using them.

Methods

- 1,975 US adults from an online health community enrolled in a symptom tracking program (MigraineSmart) consisting of daily diaries about migraine occurrence, severity, and medication use and also completed a follow-up survey 180 days later.
- MigraineSmart was designed to promote long-term engagement using tailored diary completion reminders, educational articles, and personalized summary reports of their survey responses and connected wearable data.
- Predictors of self-reported use of the reports for migraine management were explored using multivariable logistic regression.

MigraineSmart

Harnessing survey data, electronic participant reported outcomes (ePROs), wearable data, and evidence-based content to help individuals better understand and manage their migraines.

Daily monitoring: Simple daily migraine “1-click” check-in

Follow-up surveys: Quick survey to capture severity, symptoms, triggers, and medication use.

Feedback to participants: Get weekly insights and a monthly report aligning symptom logs with wearable data to see the relationship between symptoms and daily activities.

7,540 pts
345 THIS WEEK
Points history

Cards (6)
MigraineSmart
Did you have a migraine or headache yesterday?
Let us know how you felt so you can track your symptoms and contribute to migraine research.
No Yes

Home My Health Connected Apps Profile

MigraineSmart Monthly Report

DATE RANGE: 4/1/23 - 4/30/23
OVERVIEW: This report provides a summary of your recorded data along with your connected apps data collected on the Evidation app.

Symptoms

Step count

Resting heart rate

Sleep quality

Mood

Sleep duration

Active minutes

evidation

Migraine Symptom Log

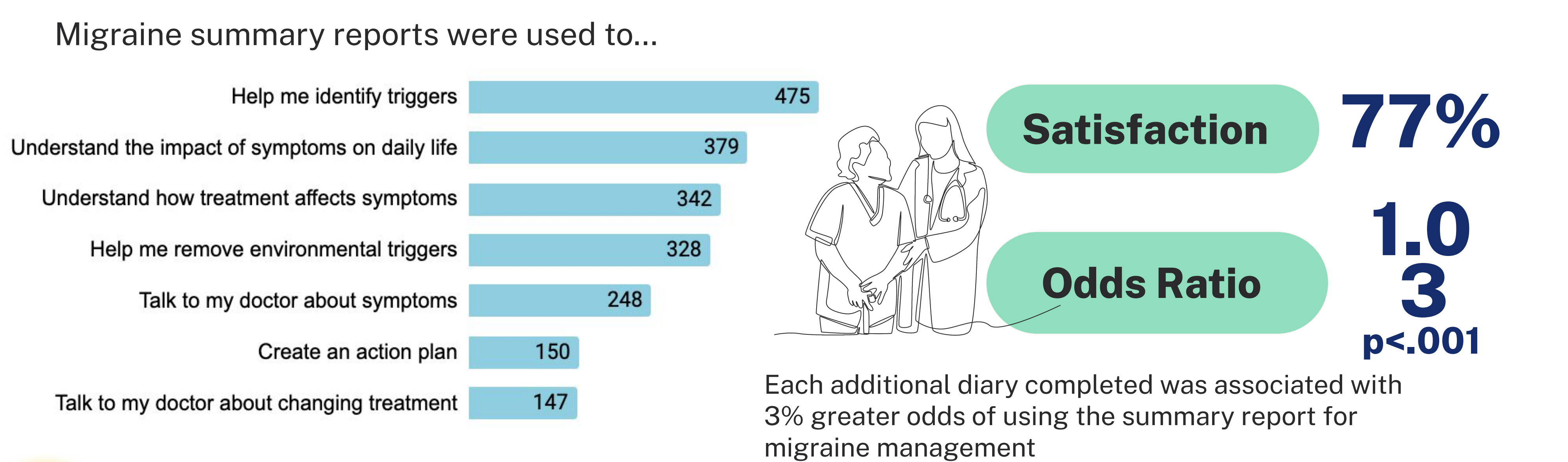
Section 1. First, we'll ask some questions about your symptom experience.

* 1. What type of head pain did you have?
☒ Headache (usually less severe dull or acute pain)
☐ Migraine without aura
☐ Migraine with aura

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Results

Participant Characteristics		Overall N = 1,975	Chronic N = 569	Episodic N = 936	Menstrual N = 207
Age, mean years (SD)		41.5 (12.6)	39.9 (11.3)	42.8 (13.1)	37.0 (9.7)
Female (%)		82%	86%	77%	96%
Race/Ethnicity	Asian	4%	3%	3%	8%
	Black	7%	7%	6%	8%
	Hispanic	10%	8%	9%	18%
	Non-Hispanic White	75%	78%	77%	62%
Treatment	Prescription medication	57%	78%	53%	41%
	OTC medication	53%	51%	54%	57%
	Vitamins, supplements	29%	37%	27%	30%
	No treatment	4%	5%	9%	9%
Number of diaries, first 30 days, mean (SD)		22.4 (9.1)	22.1 (9.0)	23.0 (8.7)	22.7 (9.2)
Summary report	Used for migraine management	46%	51%	46%	47%



Conclusion

- Personalized migraine summary reports provide feedback to users about the frequency, contexts, and impact of their symptoms on everyday life, which supports self-management and communication with healthcare providers.
- Promoting early engagement with symptom tracking may help to maximize the usefulness of these reports.
- Future work aims to quantify engagement levels needed to support migraine management across key subgroups and to evaluate strategies for decreasing tracking burden.